



Safe Motherhood Indicators—Measuring Progress

Which indicators currently work?

- ◆ *Who delivers the woman, and where does she deliver*
- ◆ *Cesarean section rate*

Stratified by urban and rural populations, these indicators can give a general sense of how women are presently giving birth, at a district, regional or national level. These indicators can be gathered through routine data collection systems or population-based surveys. Broadly they give some understanding of access issues, and *cesarean section rate* may also indicate availability of a specific service required to manage maternal complications (and hence, a component of quality of care).

Which indicators need work?

- ◆ *Met Need*
- ◆ *Unmet Obstetric Need (UON) for Major Interventions*
- ◆ *Case Fatality Rate (CFR)*
- ◆ *Referral Rate*

Most usefully applied at a district or provincial level, the two access indicators, *Met Need* and *UON*, tell us respectively whether women who need EOC are actually in a site capable of providing such care, or the converse, how much obstetric need is still unattended in the area. *Met Need* relies on an

estimate of serious as the standard against which progress is measured (15 percent of women with live births are thought to suffer a serious complication warranting Essential Obstetric Care).

The *Unmet Obstetric Need* measures progress using a standard based on the area's programmatic reality, a reference rate derived locally. In Morocco, the reference rate was one percent of women using EOC in an urban area where access is not an issue. This reference rate is less than the 15 percent used in the *Met Need* indicator. The difference between the 15 percent (*Met Need* estimate) and the one percent (*UON* reference rate) is due to the complications allowed in the definition of each. The *Met Need* indicator allows a wider array of direct obstetric complications than those in the *UON*. However, given that both indicators are based on the diagnosis of direct obstetric complications, a skilled provider must be involved. The birth (or delivery room) registers are the primary tool for collecting both indicators. These indicators are presently not collected through routine health information systems, nor can they be determined through population-based surveys.

The two quality of care indicators, *Case Fatality Rate* and *Referral Rate*, need more field testing to determine when to use them, and how to interpret them. Alternatives to these quality of care indicators are needed.

continued on back

One alternative is by collecting some of the quality of care information through the Maternal Death Audit.

What indicators are unlikely to work for measuring project/program impact?

◆ *Maternal Mortality Ratio (MMR)*

◆ *Maternal Morbidity Ratio*

While Safe Motherhood programs aim to reduce maternal deaths, measuring a significant change in the *Maternal Mortality Ratio* has proved impractical over a three to five year period: too large a sample is required causing the costs to be too high. A promising method used in Honduras to determine change in the *MMR* through health surveillance (see Box 1, ***MotherCare Matters***, 8 (1): May 1999), needs to be replicated elsewhere to assess its usefulness in measuring *significant* change over a project time period.

Why is the sample size so large? The answer is twofold. Maternal deaths are rare events: the total number of deaths is small, and the smaller the area, the fewer the deaths. Second, Safe Motherhood projects are typical-

ly district-based and may have several interventions at different levels of the health system. Controlling for confounding factors will require a number of control districts, thus dramatically increasing the sample size needed. A multi-level, multi-component effort aimed at health system change, as is the case in Safe Motherhood projects, is best evaluated through a descriptive design that links *process indicators* with specific interventions. These *process indicators* must be directly related to those factors that lead to maternal death, since significant change in the deaths cannot be measured.

Measuring change in the levels of maternal morbidities (*Maternal Morbidity Ratio*) is not an alternative to the *MMR*. Reaching women with complications and managing them has been the aim of most programs, thus minimizing their severity or preventing death—but not necessarily preventing and hence reducing the level of complications. Methods to prevent most of the complications that kill women are still unknown.

Marge Koblinsky
Director, MotherCare



MotherCare™



John Snow, Inc.
1616 N. Ft. Myer Dr., 11th Floor, Arlington, VA 22209

Tel: 703-528-7474

Fax: 703-528-7480

<http://www.jsi.com/intl/mothercare>



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